

Patent Claims

1. A component (1), in particular a hybrid component for a crossrail of a vehicle, comprising a metal base body (2) that is at least partially provided with a plastic structure (6), the metal base body (2) having on its edge region (Rg) an integrally formed fixing element (12) with the aid of which the plastic structure (6) can be at least mechanically joined to the base body (2).
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2. The component as claimed in claim 1, in which, given a metal base body (2) designed as a hollow profile, the integrally formed fixing element (12) is itself formed by an edge (Rg) running along the longitudinal axis.
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3. The component as claimed in claim 1 or 2, in which, given a metal base body (2) designed as a hollow profile, the integrally formed fixing element (12) is formed by an edge (Rg) running along the longitudinal axis that has a comb structure.
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4. The component as claimed in one of claims 1 to 3, in which the integrally formed fixing element (12) is designed as a latching element.
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5. The component as claimed in one of claims 1 to 4, in which the plastic structure (6) is provided in its edge region (Rk) with projections (14) that can be fitted, in particular inserted, plugged or latched, into a comb structure and/or into a latching element in the edge region of the metal base body (2).
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6. The component as claimed in one of claims 1 to 5, in which the integrally formed fixing element (12) at
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least partially surrounds the plastic structure (6) in the edge region (Rk) thereof.

7. The component as claimed in one of claims 1 to 6,
5 in which the integrally formed fixing element (12) surrounds the plastic structure (6) at least in a U-shape fashion.

8. The component as claimed in one of claims 1 to 7,
10 in which the integrally formed fixing element (12) surrounds, in particular embraces, the plastic structure (6) in a comb-like fashion in the edge region (Rk) thereof.

15 9. The component as claimed in one of claims 1 to 8,
in which the integrally formed fixing element (12) is provided with at least one structural element, in particular with a rib, a web, a knob, an aperture.

20 10. The component as claimed in one of claims 1 to 9,
in which the plastic structure (6) can be inserted, in particular fitted, into a cavity (H) in the metal base body (2), and can be positioned and fixed by means of the integrally formed fixing element (12).

25 11. The component as claimed in one of claims 1 to 10,
in which the plastic structure (6) can be fitted, in particular clipped, pinched, hooked and/or inserted with the aid of a flange connection, plug connection,
30 snap connection, clip connection, caulked connection and/or hook connection in its edge region (Rk) into the metal base body (2) by means of the integrally formed fixing element (12) in a self-closed and/or force-closed fashion.

35 12. The component as claimed in one of claims 1 to 11,
in which the plastic structure (6) is additionally

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connected in its edge region (Rk) to the metal base body (2) in a bonded fashion with the aid of an adhesive-bonded connection, an injection molded plastic connection, soldered connection and/or welded connection.

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13. The component as claimed in one of claims 1 to 12, in which the plastic structure (6) can additionally be connected to the metal base body (2) in the edge regions (Rg, Rk) thereof by means of a separate connecting element, in particular a clasp, for example a U-shaped clasp.

10 14. The component as claimed in one of claims 1 to 13, in which the plastic structure (6) is designed as a stiffening structure and/or a guide structure.

15 15. The component as claimed in one of claims 1 to 14, in which the plastic structure (6) is of unipartite or 20 multipartite design.

16. The component as claimed in one of claims 1 to 15, in which the plastic structure (6) is formed from a thermoplastic, in particular from a fiber-reinforced 25 and/or filled plastic.

17. The component as claimed in one of claims 1 to 16, in which the metal base body (2) is formed from a light metal, in particular aluminum, magnesium or titanium, 30 or from fine steel, and has a wall thickness of 0.4 mm to 1.5 mm.

18. The component as claimed in one of claims 1 to 17, in which the metal base body (2) is embodied as a 35 hollow profile, in particular as an open hollow profile, with an edge (Rg) running along the

longitudinal axis of the hollow profile on one or both sides, for example as a hat profile.

19. The use of a component (1) as claimed in one of
5 claims 1 to 18 as a dashboard carrier in a vehicle
having a duct (8), in particular an air guide duct
and/or a cable duct.

20. The use of a component (1) as claimed in one of
10 claims 1 to 18 as a crossrail in a vehicle, in
particular as a crossrail between the A-pillars of a
vehicle or as a front end component.

21. The use of a component as claimed in one of claims
15 1 to 18 as a carrier element in a vehicle, in
particular as an A-, B-, C-, D-pillar carrier element,
as chassis rail, as vehicle door sill or as roof post.

22. A method for producing a component (1) as claimed
20 in one of claims 1 to 18, in which a metal base body
(2) is provided in its edge region (Rg) with an
integrally formed fixing element (12) in which a
plastic structure (6) to be accommodated in a cavity
(H) in the metal base body (2) is positioned and fixed,
25 the integrally formed fixing element (12) of the metal
base body (2) being reshaped such that the plastic
structure (6) is connected at least mechanically in its
edge region (Rk) to the metal base body (2).

30 23. The method as claimed in claim 22, in which the
fixing element (12) is bent at least in a U-shape
fashion about the edge region (Rk) of the plastic
structure (6).

35 24. The method as claimed in claim 22 or 23, in which
the interconnected edge regions (Rg, Rk) of the metal
base body and of the plastic structure (6) are

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interconnected in a self-closed, force-closed and/or bonded fashion, in particular flanged, pressed, stamped, riveted, screwed, welded, soldered and/or bonded.

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25. The method as claimed in one of claims 22 to 24, in which the interconnected edge regions (Rg, Rk) of the metal base body (2) and of the plastic structure (6) are additionally interconnected by means of a 10 separate connecting element, in particular a clasp, a clip, a screw.

26. The method as claimed in one of claims 22 to 25, in which the metal base body (2) is provided with an 15 edge (Rg) forming the fixing element (12), and is used as a prefabricated module.

27. The method as claimed in one of claims 22 to 26, in which the plastic structure (6) is used as a 20 prefabricated module, in particular as a unipartite or multipartite module.